POSTERS

TCT-172

Long-Term Dual Anti-Platelet Therapy in Patients Treated with Bare Metal Stent Implantation: Results From the NHLBI Dynamic Registry

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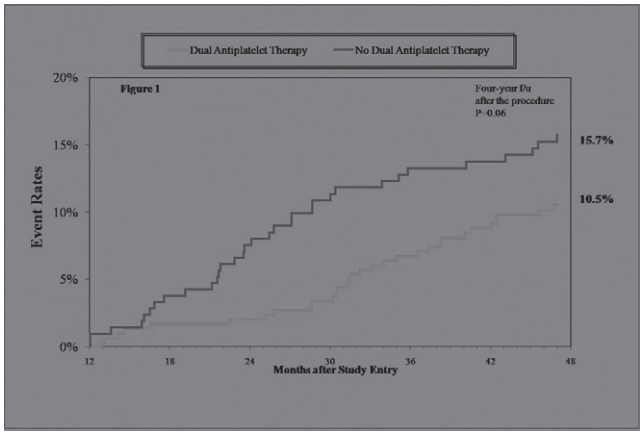
Background: In current practice, the duration of DAPT after BMS implantation remains variable, and the utility of long term DAPT in patients who receive bare mental stents remains unknown. Therefore, we sought to investigate the effect of extended DAPT in BMS-treated patients and its effect on long term outcomes.
Methods: We analyzed data from consecutive patients who received bare metal stents enrolled in Waves 4(2004) and 5(2006) of the NHLBI Dynamic Registry. Those patients who remained event free during the first year of follow up were stratified according to whether they were on DAPT at one year after stent implantation or not, and a landmark analysis was performed. Patients were followed for up to four years for the occurrence of cardiovascular events and death.
Results: A total of 526 patients with a mean age of 64 years were evaluated for the 12-month landmark, with 310 (59%) on DAPT at one year. There were no significant differences in baseline characteristics between the two groups. In the landmark analysis, there was a significantly lower 4-year rate of death in the group that continued DAPT compared to the group that did not (Figure 1: 8.5% vs. 14.3%, p = 0.03). Beneficial differences were preserved after multivariate and propensity adjustment.



Death Rates for BMS patients Event Free at One Year by Dual Anti-Platelet Therapy Use

Conclusion: Following BMS implantation, those who remain on DAPT for at least one year appear to have improved survival compared those who do not. These findings suggest that extended use of Clopidogrel up to one year might be considered in those who receive BMS, and do not otherwise have contraindications to longer term DAPT.

TCT-173

The Association Between Duration of Clopidogrel Therapy After Saphenous Vein Graft Intervention And Long-Term Death And Myocardial Infarction

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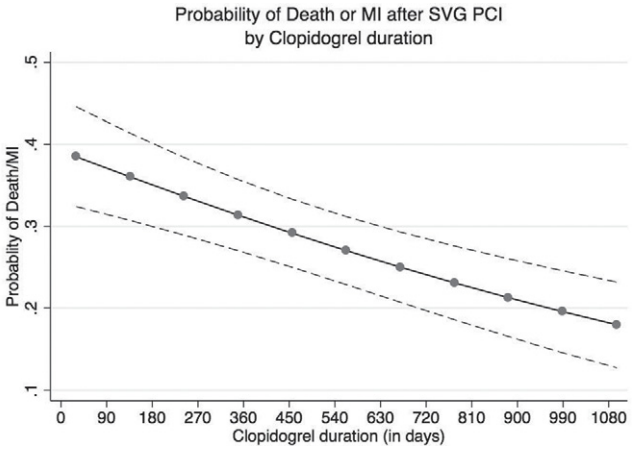
Background: In certain high-risk groups, such as patients undergoing saphenous vein graft PCI, the association between clopidogrel duration and adverse cardiovascular events has not been reported.
Methods: We identified consecutive patients undergoing saphenous vein graft PCI between 2000-2009 in an integrated prepaid health care system. Clopidogrel utilization was ascertained from pharmacy records. The date of the prescription and quantity of tablets dispensed were recorded for every clopidogrel prescription filled by the patient post-PCI. A multivariable logistic regression model was used to generate predicted probabilities for all-cause mortality and myocardial infarction (MI) post-PCI. The model was adjusted for age, gender, diabetes, hypertension, other comorbidities, stent type, clopidogrel noncompliance, and use of cardioprotective medications.
Results: There were 576 patients who underwent saphenous vein graft PCI during the study period. The mean age was 68 ± 10 years and 18% were female. The median follow-up was 3-years. Longer duration of clopidogrel therapy was associated with a lower predicted probability of death or MI post-PCI (see figure). There does not appear to be a threshold effect after which continued clopidogrel therapy is no longer effective.



Conclusion: This is the first report, to our knowledge, to characterize the relationship between duration of clopidogrel therapy and long-term adverse cardiovascular outcomes after saphenous vein graft PCI. These data suggest that longer duration of dual antiplatelet therapy with clopidogrel is associated with a significant reduction in death and MI in this high-risk group.

TCT-174

Low-Molecular-Weight Heparins vs Unfractionated Heparin in the Setting of Percutaneous Coronary Intervention for ST-elevation Myocardial Infarction: A Meta-analysis

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Background: The aim of the current study was to perform two separate meta-analyses of available studies comparing low-molecular-weight heparins (LMWHs) versus unfractionated heparin (UFH) in ST-elevation myocardial infarction (STEMI) patients treated 1) with primary percutaneous coronary intervention (pPCI) or 2) with PCI after thrombolysis.
Methods: All-cause mortality was the prespecified primary endpoint and major bleeding complications were recorded as secondary endpoint. Relative risk (RR) with 95 % confidence interval (CI) and absolute risk reduction (ARR) were chosen as the effect measure.
Results: Ten studies comprising 16286 patients were included. The median follow-up was two months for the primary endpoint. Among LMWHs, enoxaparin was the compound most frequently used. In the pPCI group LMWHs were associated with a reduction in mortality (RR [95% CI] = 0.51 [0.41 - 0.64], p < 0.001, ARR = 3%) and major bleeding (RR [95% CI] = 0.68 [0.49 - 0.94], p = 0.02, ARR = 2.0 %) as compared to UFH. Conversely, no clear evidence of benefits with LWMHs was observed in the PCI group after thrombolysis. Meta-regression showed that patients with higher baseline risk had larger benefits from LMWHs (r = 0.72, p = 0.02).
Conclusion: LMWHs were associated with greater efficacy and safety than UFH in STEMI patients treated with pPCI, with a significant relationship between risk profile and clinical benefits. Based on this meta-analysis, LMWHs may be considered as a preferred anticoagulant among STEMI patients undergoing pPCI.

TCT-175

Evaluation of Dose Requirements for Prolonged Bivalirudin Administration in Patients with Renal Insufficiency and Suspected Heparin-Induced Thrombocytopenia

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Background: Bivalirudin is indicated for patients with suspected heparin-induced thrombocytopenia (HIT) and anticipated percutaneous coronary intervention. There are limited data on dose selection among patients with renal insufficiency, particularly when clinical conditions dictate a prolonged infusion (>24h).
Methods: The study cohort comprised 73 patients with renal dysfunction who received bivalirudin for suspected HIT with or without acute coronary syndrome. We reviewed individual pharmacy and medical records for laboratory and bivalirudin dosing information, medical co-morbidities, and adverse clinical outcomes during administration.
Results: Average duration of treatment was 10.2 ± 11.6 days. When estimated